

What is claimed is:

1. (original) An electric hand tool comprising a machine housing (11), with an electric motor (12) accommodated in the machine housing (11) for driving a tool (13), and a fan wheel (21) accommodated in the machine housing (11) for generating a cooling air current that flows through the machine housing (11), which said fan wheel creates a suction space (22) and a pressure space (23) on opposite sides when it rotates, wherein means for generating an additional air current are provided and configured such that the additional air current flows onto at least one machine component that is located outside of or in a low-flow region of the cooling air current.
2. (original) The electric hand tool as recited in Claim 1, wherein the electric motor (12) includes a motor winding (31) with winding heads (311) that project outward on at least one end face of the electric motor (12), the fan wheel (21) is located with axial clearance in front of the end face of the electric motor (12) and is configured such that the suction space (22) is located in front of the end face of the electric motor (12) where the winding heads (31) are located, and the means for generating the additional air current have air inlets that lead into the suction space (22).
3. (original) The electric hand tool as recited in Claim 2, wherein the air inlets are air inlet openings (24) that are configured in the wall of the machine housing (11) on or near the end face of the electric motor (12).
4. (original) The electric hand tool as recited in Claim 2, wherein the air inlets are passages (25) located in a dividing wall (40; 26) that separates the pressure space (23) from the suction space (22) and, preferably, the passages (25) are separated from the axis of the fan wheel by the greatest radial distance possible.

5. (original) The electric hand tool as recited in Claim 4, wherein the dividing wall (40) is fixed in position, and is mounted on the machine housing (11), or it is part of the machine housing (11).
6. (original) The electric hand tool as recited in Claim 4, wherein the dividing wall rotates with the fan wheel (21) and is an integral part of the fan wheel (21).
7. (original) The electric hand tool as recited in Claim 6, wherein the fan wheel (21) has a base plate (27) with a hub (271) for sliding onto a driven shaft (15) of the electric motor (12), a cover plate (26) that has axial clearance from the base plate (27) and forms the dividing wall, and radially oriented fan vanes (28) that are located between the base and cover plate (27, 26), and air outlet openings (19) are located in the wall of the machine housing (11) on the pressure side of the fan wheel (21) in the region of the vane ends.
8. (original) The electric hand tool as recited in Claim 1, wherein the electric motor (12) has a motor winding (31) with winding heads (311) that project outward on at least one end face of the electric motor (12), and the means for generating the additional air current has openings in the wall of the machine housing (11) that are located in the region of the end face of the electric motor (12) on which the winding heads (311) are carried.
9. (currently amended) The electric hand tool as recited in ~~one of the Claims 4-8~~ claim 1, wherein the means for generating an additional air current have air guide elements (41) that divert a sub-current, as the additional air current, from the cooling air current.
10. (original) The electric hand tool as recited in Claim 9,

wherein the electric motor (10) has a stator (30), a rotor (32) and an air gap (33) located between the two, and the air guide elements (41) are located in the suction space (22) and are configured such that a sub-current is diverted to the winding heads (311) from the cooling air current passing through the air gap (33) and into the suction space (22).

11. (currently amended) The electric hand tool as recited in ~~one of the Claims 4-10~~ claim 1, wherein the means for generating the additional air current have at least one air duct (34) guided in the machine housing (11), and one end of the duct is located in the cooling air stream, and the other end of the duct is located at or near the machine component (17).

12. (original) The electric hand tool as recited in Claim 11, wherein the duct inlet is located at or near the machine component (17), and the duct outlet leads into the suction space (22) of the fan wheel (21).

13. (currently amended) The electric hand tool as recited in Claim 11 ~~or 12~~, wherein the air duct (34) is formed in the wall of the machine housing (11).

14. (original) The electric hand tool as recited in Claim 13, wherein the machine housing (11) has two shells, and one part (341, 342) of the air duct (34) is formed in each housing shell (111, 112) such that, when the two housing shells (111, 112) are joined, the air duct (34) is formed.

15. (currently amended) The electric hand tool as recited in ~~one of the Claims 4-14~~ claim 1, wherein the electric motor (12) includes a commutator (37) with commutator brushes (38), and the means for generating an additional air current with the commutator (37) have air turbulence-generating elements (42) around the periphery, which are arranged such that the additional air current they generate flows across the commutator surface.

16. (original) The electric hand tool as recited in Claim 15, wherein the air turbulence-generating elements (42) are formed on the commutator (37) itself.

17. (original) The electric hand tool as recited in Claim 15, wherein the air turbulence-generating elements (42) are the fan vanes (43) of an axial fan wheel (44) that is joined with the commutator (37) in torsion-proof fashion.

18. (currently amended) The electric hand tool as recited in ~~one of the Claims 15-17~~ claim 15, wherein the commutator brushes (38) are displaceably held in a brush cartridge (39), and the brush cartridges (39) are equipped with cooling ribs (47).

19. (currently amended) The electric hand tool as recited in ~~one of the Claims 11-18~~ claim 11, wherein the machine component is an on/off switch (17) for the electric motor (12) or a battery pack for supplying power.